

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
19 April 2001 (19.04.2001)

PCT

(10) International Publication Number  
**WO 01/28205 A2**

(51) International Patent Classification<sup>7</sup>: **H04M 3/00**

(21) International Application Number: **PCT/SE00/01909**

(22) International Filing Date: **3 October 2000 (03.10.2000)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:  
**09/418,112 14 October 1999 (14.10.1999) US**

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *Without international search report and to be republished upon receipt of that report.*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

Vorlage	Ablage
Haupttermin	
Eing.: 07. OKT. 2004	
PA. Dr. Peter Riebling	
Bearb.:	Vorgelegt.

(54) Title: **SYSTEM AND METHOD OF RETRIEVING VOICE MAIL MESSAGES IN A TELECOMMUNICATIONS NETWORK**

(57) Abstract: A system and method of retrieving voice mail messages from a primary VMS (13) and at least one secondary VMS (17) with a single phone call from a subscriber. A telephone number for the secondary VMS is stored in a subscriber profile (18) in the primary VMS. After the subscriber calls the primary VMS and retrieves messages stored in the primary VMS, the subscriber is presented with an options menu (25) and selects to divert (26) to the secondary VMS. The primary VMS retrieves (27) the stored telephone number for the secondary VMS, automatically seizes (28) an outside telephone line, and auto-dials the telephone number for the secondary VMS. The secondary VMS provides a menu of options (29) to the subscriber. The secondary VMS then receives a subscriber selection (30) to listen to messages, and plays messages (31) stored in the secondary VMS for the subscriber in response to the subscriber selection. If more than one secondary VMS is defined (35) in the subscriber profile, the primary VMS sequentially calls (37) each of the secondary VMSs for retrieval of messages stored therein.

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one secondary voice mail box that enables a subscriber to check voice mail boxes for multiple phones such as his office phone and his mobile phone with a single call. The present invention provides such a system and method.

## 5 SUMMARY OF THE INVENTION

In one aspect, the present invention is a method in a telecommunications network of retrieving voice mail messages from a primary voice mail system (VMS) and a secondary VMS with a single message-retrieving phone call from a subscriber. The method includes the steps of receiving the phone call from the subscriber in the  
10 primary VMS, playing messages stored in the primary VMS for the subscriber, automatically forwarding the call to the secondary VMS, and playing messages stored in the secondary VMS for the subscriber. The subscriber may define and access multiple "secondary mailboxes".

In more detail, the method includes the steps of storing a telephone number for  
15 each secondary VMS in a subscriber database in the primary VMS, receiving the phone call from the subscriber in the primary VMS, and providing by the primary VMS, a menu of options to the subscriber. This is followed by receiving by the primary VMS, a subscriber selection to listen to messages, and playing messages stored in the primary VMS for the subscriber in response to the subscriber selection.  
20 If the subscriber then selects to divert to a secondary VMS, the primary VMS retrieves the stored telephone number for the first defined secondary VMS, automatically seizes an outside telephone line, and dials the telephone number for the secondary VMS. The call from the primary VMS is received in the secondary VMS which then provides a menu of options to the subscriber. The secondary VMS then receives a subscriber  
25 selection to listen to messages, and plays messages stored in the secondary VMS for the subscriber in response to the subscriber selection. When all messages have been retrieved from the secondary VMS, the primary VMS retrieves the stored telephone number for the next defined secondary VMS and repeats the process until all defined secondary VMSs have been called.

30 In another aspect, the present invention is a system in a telecommunications network for retrieving voice mail messages from a primary VMS and a secondary

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installation, the outside line may be a radio channel to the PLMN. The subscriber also utilizes at least one secondary VMS 17 which may be associated with the subscriber's mobile phone, or may be associated with another landline telephone utilized by the subscriber. Thus, the secondary VMS may be accessed either through the PLMN or through the PSTN.

The primary VMS 13 includes a message playback unit 9 and a subscriber profile 18 in which information about the subscriber is stored. The subscriber profile is typically set up when the subscriber first joins the office, and does not require further input unless some of the subscriber information changes, or if some optional subscriber information becomes available at a later date. The subscriber profile may include a subscriber identification (ID) number, an extension number, a personal identification number (PIN) for security, and optional information such as the telephone number of each secondary VMS 17 that the subscriber has defined in the system. The primary VMS also includes a menu generator 19 which provides a menu of subscriber options to the subscriber when the subscriber accesses the primary VMS. The main option menu may include, for example:

- 1 - Listen to Messages;
- 2 - Send a Message;
- 3 - Divert to Secondary Voice Mail System;
- 5 - Call Another Extension;
- 6 - Send Message to Another Extension;
- 9 - Change Greeting, Name Announcement, or Profile; and
- \* - Disconnect.

The preferred embodiment of the present invention adds a sub-option under the Change Profile branch of the options menu which enables the subscriber to store the telephone number of the secondary VMS(s). Thereafter, whenever the subscriber selects "Divert to Secondary Voice Mail System" in the main option menu, the VMS retrieves the telephone number of the secondary VMS, seizes an outside line, and utilizes an auto-dialer 20 to dial the telephone number of the secondary VMS.

FIG. 2 is a flow chart illustrating the steps of the method of the present invention in which a subscriber retrieves voice mail messages from two voice mail

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are more secondary VMSs, the process moves to step 37 where the primary VMS obtains the telephone number of the next defined secondary VMS from the subscriber profile or the subscriber. The process then repeats steps 28-35 for each defined secondary VMS.

5           Although the preferred embodiment disclosed herein has described a primary VMS which automatically calls at least one secondary VMS when prompted by the subscriber, it should be recognized that the present invention also includes a VMS which automatically calls any telephone number which is defined in its database or is entered by the subscriber.

10           It is thus believed that the operation and construction of the present invention will be apparent from the foregoing description. While the method, apparatus and system shown and described has been characterized as being preferred, it will be readily apparent that various changes and modifications could be made therein without departing from the scope of the invention as defined in the following claims.

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a menu generator for offering options to a subscriber and receiving subscriber selections;

message playback means for playing messages stored in the primary VMS for the subscriber in response to the subscriber selecting to listen to messages;

5 means for requesting from the subscriber, a telephone number for a secondary VMS, in response to the subscriber selecting to divert to the secondary VMS; and

10 an auto-dialer for automatically seizing an outside telephone line and dialing the telephone number for the secondary VMS in response to the subscriber entering the telephone number for the secondary VMS; and

a secondary VMS for playing messages stored in the secondary VMS for the subscriber upon receiving the call from the primary VMS.

15 5. A method in a telecommunications network of retrieving voice mail messages from a primary voice mail system (VMS) and at least one secondary VMS with a single message-retrieving phone call from a subscriber, said method comprising the steps of:

20 receiving the phone call from the subscriber in the primary VMS;  
playing messages stored in the primary VMS for the subscriber;  
automatically forwarding the call to the secondary VMS; and  
playing messages stored in the secondary VMS for the subscriber.

25 6. The method of retrieving voice mail messages of claim 5 further comprising storing a telephone number for the secondary VMS in a subscriber database in the primary VMS.

30 7. The method of retrieving voice mail messages of claim 6 wherein the step of automatically forwarding the call to the secondary VMS includes the steps of:  
retrieving by the primary VMS, the stored telephone number for the secondary VMS; and

automatically seizing an outside telephone line by the primary VMS, and

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comprising, after the step of requesting the subscriber to enter a telephone number for the secondary VMS, the steps of:

determining whether the subscriber entered a valid telephone number; and  
storing the telephone number in a subscriber database in the primary VMS.

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13. The method of retrieving voice mail messages of claim 5 further comprising storing a plurality of telephone numbers for a plurality of secondary VMSs defined in a subscriber database in the primary VMS.

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14. The method of retrieving voice mail messages of claim 13 wherein the step of automatically forwarding the call to the secondary VMS includes the steps of:

retrieving by the primary VMS, a stored telephone number for a first defined secondary VMS; and

15

automatically seizing an outside telephone line by the primary VMS, and dialing the telephone number for the first defined secondary VMS.

15. The method of retrieving voice mail messages of claim 14 further comprising, after the step of playing messages stored in the secondary VMS for the subscriber, the steps of:

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determining whether additional secondary VMSs are defined in the subscriber profile;

retrieving by the primary VMS, a stored telephone number for a next defined secondary VMS, upon determining that additional secondary VMSs are defined in the subscriber profile; and

25

automatically seizing an outside telephone line by the primary VMS, and dialing the telephone number for the next defined secondary VMS.

16. A voice mail system (VMS) in a telecommunications network, said VMS comprising:

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a database of information for a subscriber, said database including a stored telephone number;

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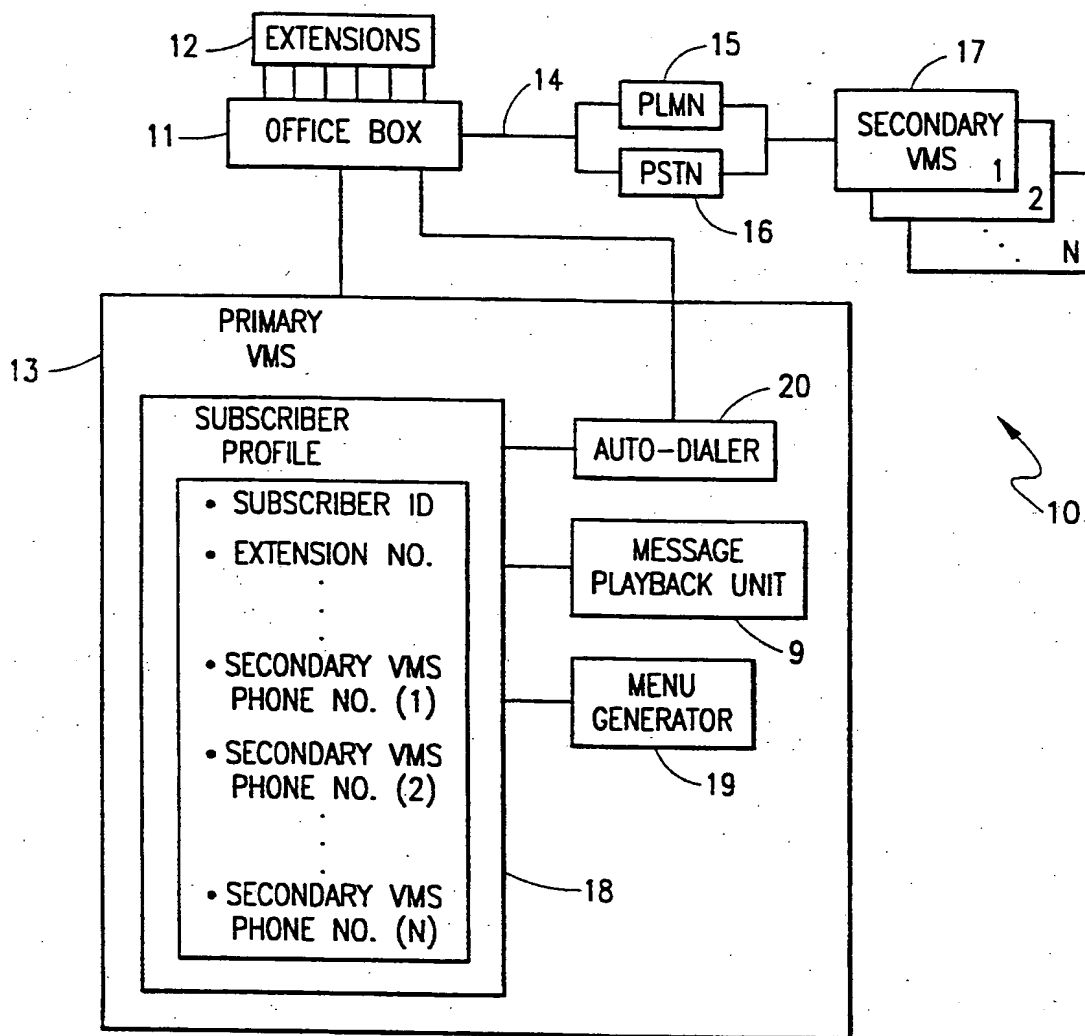


FIG. 1

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
19 April 2001 (19.04.2001)

PCT

(10) International Publication Number  
**WO 01/28205 A3**

(51) International Patent Classification<sup>7</sup>: H04M 3/50

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(22) International Filing Date: 3 October 2000 (03.10.2000)

(25) Filing Language: English

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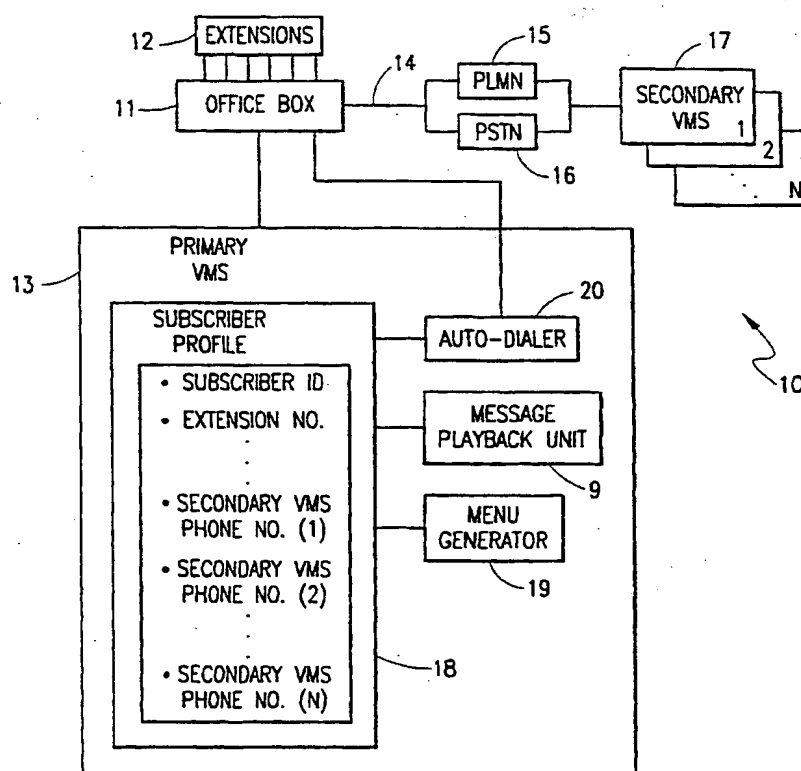
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

(88) Date of publication of the international search report:  
6 December 2001

[Continued on next page]

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/SE 00/01909

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04M3/50

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 866 585 A (SYSTEMS BUSINESS COMM SYSTEMS) 23 September 1998 (1998-09-23) column 3, line 43 -column 6, line 28 column 6, line 48 - line 56 ---	1-19
A	EP 0 831 664 A (SYSTEMS BUSINESS COMM SYSTEMS) 25 March 1998 (1998-03-25) column 2, line 53 -column 5, line 21 ---	1-19
A	EP 0 921 699 A (AT & T WIRELESS SERVICES INC) 9 June 1999 (1999-06-09) column 1, line 37 -column 2, line 46 -----	1-19

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

24 January 2001

Date of mailing of the international search report

19. 04. 2001

Name and mailing address of the ISA

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